

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A vehicular generator-motor system comprising:

a rotary machine comprising:

a stator having three phase armature winding and a rotor composed of a field winding for magnetizing a plurality of field magnetic poles, and

permanent magnets for magnetizing said field magnetic poles by interaction with the field winding;

an electrical power converter which performs as a rectifier when said rotary machine is operated as a generator, and performs as an inverter when said rotary machine is operated as a motor; and

a control device controlling said electrical power converter, thereby, when said rotary machine is operated as a motor, said control device controls said electrical power converter so as to restrict the armature current at the time of low speed rotation,

wherein the control device sets the armature current for starting torque to a smaller value to an extent of the field magnetic flux increased by the permanent magnets.

2. (previously presented): A vehicular generator-motor system according to claim 1, further comprising:

a field current control device controlling a field current flowing through the field winding, wherein when said rotary machine is operated as a motor, said field current control device is controlled by said control device to increase said field current at the time of low speed rotation.

3. (previously presented): A vehicular generator-motor system according to claim 2, wherein said field current control device is controlled by said control device to reduce said field current with increasing rotating speed of said rotary machine.

4. (previously presented): A vehicular generator-motor system according to claim 1, wherein when said rotary machine is operated as a starting motor, said control device controls three phase terminal voltage of said inverter in response to the rotating speed of said rotary machine.

5. (previously presented): A vehicular generator-motor system according to claim 2, wherein when said rotary machine is operated as a starting motor, said control device controls three phase terminal voltage of said inverter in response to the rotating speed of said rotary machine.

6. (previously presented): A vehicular generator-motor system according to claim 3, wherein when said rotary machine is operated as a starting motor, said control device controls

three phase terminal voltage of said inverter in response to the rotating speed of said rotary machine.

7. (original): A vehicular generator-motor system according to claim 1, wherein the armature current at the time of low speed rotation is limited to 300 amperes or below.

8. (original): A vehicular generator-motor system according to claim 1, wherein said electrical power converter operated as the inverter is air-cooled.

9. (original): A vehicular generator-motor system according to claim 1, wherein said electrical power converter is functioned as the inverter only when said rotary machine is operated as a motor.

10. (original): A vehicular generator-motor system according to claim 1, wherein said rotor includes a pair of claw-shaped poles in which each of pair poles has a plurality of claw-shaped pole pieces alternately meshed to each other, and each of said permanent magnets is inserted between said adjacent claw-shaped pole pieces.

11. (original): A vehicular generator-motor system according to claim 10, wherein each of said adjacent claw-shaped pole pieces is magnetically shorted by a magnetic bridge element at the periphery of said claw-shaped poles, and said permanent magnets are disposed inside of said bridge elements.